

WHAT IS CLAIMED IS:

1. A deflecting yoke apparatus comprising:
first and second frame coils configured to correct
a vertical horizontal misconvergence in a screen;
5 first and second main coils which are wound around
a core and configured to deflect in a vertical
direction electron beams which have passed through a
magnetic field generated by the first and second frame
coils;
10 first and second sub-coils which are wound around
the core and configured to deflect in the vertical
direction the electron beams which have passed through
the magnetic field generated by the first and second
frame coils;
15 a first deflecting current supply portion
configured to pass a serriform deflecting current to
the first and second main coils; and
a second deflecting current supply portion
configured to supply to the first and second sub-coils
20 through a first and second diodes connected in parallel
so as to have opposed directions a deflecting current
which is supplied to the first and second main coils by
the first deflecting current supply portion.
2. A deflecting yoke apparatus according to
25 claim 1, wherein the first deflecting current supply
portion is configured to connect the first and second
main coils in series between first and second terminals

to which a predetermined voltage is applied, and
the second deflecting current supply portion is
configured to connect the first sub-coil, a parallel
circuit of the first and second diodes, a series
5 circuit of the second sub-coil and a resistor in
parallel between the first and second terminals.

3. A deflecting yoke apparatus according to
claim 1, wherein the first main coil and the first
sub-coil are wound around the core by using
10 a continuous conducting wire, and the second main coil
and the second sub-coil are wound around the core by
using a continuous conducting wire.

4. A deflecting yoke apparatus according to
claim 3, wherein the first main coil and the first
15 sub-coil are wound around the core in such a manner
that a winding trailing end of the first sub-coil
becomes continuous with a winding start end of the
first main coil, and the second main coil and the
second sub-coil are wound around the core in such
20 a manner that a winding trailing end of the second
sub-coil becomes continuous with a winding start end of
the second main coil.

5. A deflecting yoke apparatus according to
claim 3, wherein the first main coil and the first
25 sub-coil are wound around the core in such a manner
that a winding trailing end of the first main coil
becomes continuous with a winding start end of the

first sub-coil, and the second main coil and the second sub-coil are wound around the core in such a manner that a winding trailing end of the second main coil becomes continuous with a winding start end of the 5 second sub-coil.

6. A deflecting yoke apparatus according to claim 3, wherein the first deflecting current supply portion is configured to connect the first and second main coils in series between first and second terminals 10 to which a predetermined voltage is applied, and

the second deflecting current supply portion is configured to connect the first sub-coil, a parallel circuit of the first and second diodes, a series circuit of the second sub-coil and a resistor in 15 parallel between the first and second main coils.

7. A deflecting yoke apparatus according to claim 1, 2, 3, 4, 5 or 6, wherein the first main coil and the first sub-coil are respectively wound around parts of the core corresponding to an upper side in 20 a screen in the vertical direction, and the second main coil and the second sub-coil are respectively wound around parts of the core corresponding a lower side in the screen in the vertical direction.

8. A deflecting yoke apparatus according to 25 claim 7, wherein the first and second sub-coils are respectively wound around parts of the core corresponding to a vertical axis which divides

the screen in two in the horizontal direction.

9. A deflecting yoke apparatus according to claim 7, wherein the first and second sub-coils are wound around the wound first and second main coils.

5 10. A deflecting yoke apparatus according to claim 7, wherein the first and second main coils are wound around the wound first and second sub-coils.

11. A television receiver comprising:

10 a reception portion configured to receive a television broadcast signal; a signal processing portion configured to generate a video signal from the television broadcast signal received by the reception portion;

15 a deflecting current generation portion configured to generate a deflecting current from the television broadcast signal received by the reception portion;

20 a deflecting yoke portion configured to generate a magnetic field which deflects electron beams by using the deflecting current generated by the deflecting current generation portion; and

25 a display portion configured to display the video signal generated by the signal processing portion as a screen image by deflecting the electron beams by using the magnetic field generated by the deflecting yoke portion,

the deflecting yoke portion comprising:

first and second frame coils configured to correct

a vertical horizontal misconvergence in the screen;

first and second main coils which are wound around a core and configured to deflect in the vertical direction electron beams which have passed through a magnetic field generated by the first and second frame coils;

first and second sub-coils which are wound around the core and configured to deflect in the vertical direction the electron beams which have passed through the magnetic field generated by the first and second frame coils;

a first deflecting current supply portion configured to pass a serriform deflecting current to the first and second main coils; and

a second deflecting current supply portion configured to supply to the first and second sub-coils through first and second diodes connected in parallel so as to have opposed directions a deflecting current which is supplied to the first and second main coils by the first deflecting current supply portion.

12. A television receiver according to claim 11, wherein the first deflecting current supply portion is configured to connect the first and second main coils in series between first and second terminals to which a predetermined voltage is applied, and

the second deflecting current supply portion is configured to connect the first sub-coil, a parallel

circuit of the first and second diodes, a series circuit of the second sub-coil and a resistor in parallel between the first and second terminals.

13. A television receiver according to claim 11,
5 wherein the first main coil and the first sub-coil are wound around the core by using a continuous conducting wire, and the second main coil and the second sub-coil are wound around the core by using a continuous conducting wire.

10 14. A television receiver according to claim 13,
wherein the first main coil and the first sub-coil are wound around the core in such a manner that a winding trailing end of the first sub-coil becomes continuous with a winding start end of the first main coil, and
15 the second main coil and the second sub-coil are wound around the core in such a manner that a winding trailing end of the second sub-coil becomes continuous with a trailing start end of the second main coil.

15. A television receiver according to claim 13,
20 wherein the first main coil and the first sub-coil are wound around the core in such a manner that a winding trailing end of the first main coil becomes continuous with a winding start end of the first sub-coil, and
25 the second main coil and the second sub-coil are wound around the core in such a manner that a winding trailing end of the second main coil becomes continuous with a winding start end of the second sub-coil.

16. A television receiver according to claim 13,
wherein the first deflecting current supply portion is
configured to connect the first and second main coils
in series between first and second terminals to which
5 a predetermined voltage is applied, and

the second deflecting current supply portion is
configured to connect the first sub-coil, a parallel
circuit of the first and second diodes, a series
circuit of the second sub-coil and a resistor in
10 parallel between the first and second main coils.

17. A television receiver according to claim 11,
12, 13, 14, 15 or 16, wherein the first main coil and
the first sub-coil are respectively wound around parts
of the core corresponding to an upper side in a screen
15 in the vertical direction, and the second main coil and
the second sub-coil are respectively wound around parts
of the core corresponding to a lower side in the screen
in the vertical direction.

18. A television receiver according to claim 17,
20 wherein the first and second sub-coils are respectively
wound around parts of the core corresponding to
a vertical axis which divides the screen in two in
the horizontal direction.

19. A television receiver according to claim 17,
25 wherein the first and second sub-coils are wound around
the wound first and second main coils.

20. A television receiver according to claim 17,

wherein the first and second main coils are wound around the wound first and second sub-coils.